## INTERNATIONAL SEARCH REPORT

Interactional Application No PCT/GB2004/004942

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A47C21/06 A61F5/48

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 A47C A61F A61G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Etectronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

| C. DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |  |  |  |
|--|---|-----------------------|--|--|--|
| Category °                             | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |  |  |  |
| X                                      | US 6 341 393 B1 (VOTEL THOMAS W)<br>29 January 2002 (2002-01-29)  | 1,7-22,<br>26-28      |  |  |  |
| A                                      | column 51, lines 11-18  | 2-6,<br>23-25         |  |  |  |
|  | column 52, lines 21-47,43-46; figures<br>156-159<br>  |                       |  |  |  |
| X                                      | US 5 137 033 A (NORTON ET AL)<br>11 August 1992 (1992-08-11)<br>column 2, lines 3-31; figures   | 1                     |  |  |  |
| X                                      | US 5 291 181 A (DEPONTE ET AL) 1 March 1994 (1994-03-01) column 5, lines 3-5,20-23,44-46,51-64 column 6, lines 8-10,28-30,51-53; claim 9; figures 1,2,5 | 1                     |  |  |  |
|  | -/  |                       |  |  |  |

| X Further documents are listed in the continuation of box C.   | Patent family members are listed in annex.  |
|--|---|
| Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier document but published on or after the international filling date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means:  "P" document published prior to the international filling date but later than the priority date claimed | <ul> <li>'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>'&amp;' document member of the same patent family</li> </ul> |
| Date of the actual completion of the international search  4 April 2005  | Date of mailing of the international search report  22/04/2005  |
| Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,  Fax: (+31–70) 340–3016   | Authorized officer Amghar, N  |

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Investional Application No PCT/GB2004/004942

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|------------|--|-----------------|-------------|
| C.(Continu | ation) DOCUMENTS CONSIDERED TO BE RELEVANT   |                 |             |
| Category ° | Citation of document, with Indication, where appropriate, of the relevant passages   | Relevant t      | o claim No. |
| A          | PATENT ABSTRACTS OF JAPAN vol. 1998, no. 05, 30 April 1998 (1998-04-30) & JP 10 020789 A (KAMIYAMA KISHIKO), 23 January 1998 (1998-01-23) abstract | 1,              | 2           |
| A          | EP 1 138 293 A (THE PROCTER & GAMBLE COMPANY) 4 October 2001 (2001-10-04) paragraphs '0057!, '0058!; claim 2                                       | 1,              | 2           |
| A          | WO 94/10958 A (MITCHELL, WINALEE, G) 26 May 1994 (1994-05-26) claim 9; figures 2-5   | 1,              | 2           |
|            |  |                 |             |
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|            |  |                 |             |
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## INTERNATIONAL SEARCH REPORT

Internal Application No PCT/GB2004/004942

|       | nt document<br>n search report |    | Publication<br>date |                | Patent family member(s)       |             | Publication date         |
|-------|--------------------------------|----|---------------------|----------------|-------------------------------|-------------|--------------------------|
| 115 6 | 341393                         | B1 | 29-01-2002          | US             | 6378148                       | B1          | 30-04-2002               |
| 05 0  | ,541555                        | 01 | 25 01 2002          | US             | 5890238                       |             | 06-04-1999               |
|       |                                |    |                     | ÜS             | 5737781                       |             | 14-04-1998               |
|       |                                |    |                     | CA             | 2344553                       |             | 27-04-2000               |
|       |                                |    |                     | WO             | 0023026                       |             | 27-04-2000               |
|       |                                |    |                     | ÜS             | 6496991                       |             | 24-12-2002               |
|       |                                |    |                     | US             | 2002029418                    |             | 14-03-2002               |
|       |                                |    |                     | US             | 2004221388                    |             | 11-11-2004               |
|       |                                |    |                     | EP             | 0865245                       |             | 23-09-1998               |
|       |                                |    |                     | ĴΡ             | 11512322                      |             | 26-10-1999               |
|       |                                |    |                     | AU             | 7109196                       |             | 01-04-1997               |
|       |                                |    |                     | CA             | 2231995                       |             | 20-03-1997               |
|       |                                |    |                     | WO             | 9709896                       |             | 20-03-1997               |
|       |                                |    |                     | AU             | 7106498                       |             | 30-10-1998               |
|       |                                |    |                     | CA             | 2285956                       |             | 15-10-1998               |
|       |                                |    |                     | EP             | 0984760                       |             | 15-10-1998               |
|       |                                |    |                     |                |                               |             | 02-10-2001               |
|       |                                |    |                     | JP             | 2001517107<br>9844889         |             | 15-10-2001               |
|       |                                |    |                     | WO             | 9844889<br>                   | <del></del> | 15-10-1996               |
| US 5  | 5137033                        | Α  | 11-08-1992          | NONE           |                               |             |                          |
| US 5  | 5291181                        | A  | 01-03-1994          | US             | 5459452                       | A           | 17-10-1995               |
| JP 1  | 10020789                       | Α  | 23-01-1998          | NONE           |                               |             |                          |
| EP 1  | 1138293                        | A  | 04-10-2001          | EP             | 1138293                       | A1          | 04-10-2001               |
|       |                                |    |                     | AU             | 4771801                       | Α           | 08-10-2001               |
|       |                                |    |                     | BR             | 0109098                       | Α           | 03-06-2003               |
|       |                                |    |                     | CA             | 2403872                       | A1          | 04-10-2001               |
|       |                                |    |                     | CN             | 1420751                       |             | 28-05-2003               |
|       |                                |    |                     | CZ             | 20022984                      | A3          | 13-11-2002               |
|       |                                |    |                     | EG             | 22397                         |             | 29-01-2003               |
|       |                                |    |                     | HU             | 0300003                       | A2          | 28-04-2003               |
|       |                                |    |                     | JP             | 2003527928                    | T           | 24-09-2003               |
|       |                                |    |                     | MX             | PA02008523                    | Α           | 13-12-2002               |
|       |                                |    |                     | WO             | 0172252                       |             | 04-10-2001               |
|       |                                |    |                     | ÜS             | 2003065299                    | A1          | 03-04-2003               |
|       |                                |    |                     | ZA             | 200206908                     |             | 03-07-2003               |
|       |                                | Α  | 26-05-1994          | US             | 5354289                       |             | <br>11-10-1994           |
|       | 9410958                        | ~  |                     |                |                               |             | 08-06-1994               |
| WO 9  | 9410958                        | A  |                     | All            | 5600194                       | A           | UU UU 1.737              |
| WO 9  | 9410958                        | A  |                     | AU<br>CA       | 5600194<br>2149325            |             |                          |
| WO 9  | 9410958                        | A  |                     | AU<br>CA<br>EP | 5600194<br>2149325<br>0727975 | A1          | 26-05-1994<br>28-08-1996 |